7. (Amended) The method according to claim 6, which is used for treating or preventing hepatitis, severe hepatitis, cirrhosis, cholestasia in liver, chronic nephritis, pneumonia, wound, senile dementia, Alzheimer's disease, peripheral neuropathy, a cerebrovascular disease, brain tumor, apex of brain, a degenerative disease associated with head injury, anesthetic intoxication, growth impairment, amyotrophic lateral sclerosis, osteoporosis, and renal insufficiency.

8. (Amended) The method according to claim 6, wherein the composition is a food or a drink.

REMARKS

Paper No. 7, the final Office Action mailed May 7, 2002, has been carefully reviewed. The claims in the application, upon entry of the Amendment presented above, will be only method claims 6-8. Applicants continue to maintain that these claims define patentable subject matter under §§102 and 103, and should be allowed. Accordingly, favorable reconsideration, entry of the amendment presented above, and allowance are earnestly solicited.

Claims 4-8 have been rejected under the first paragraph of §112. The rejection is respectfully traversed.

As claims 4 and 5 have been deleted, the rejection is no longer applicable to these claims.

As regards claims 6-8, upon entry of the amendments presented above, supported by applicant's specification (e.g. at

page 24, line 18 to page 28, line 8) claim 7 now recites only the specified disease entities mentioned in applicants' specification, whereby the criticism raised in the rejection is no longer applicable. Claim 6, and claim 8 which depends therefrom, does not mention any disease entities, but instead calls for enhancing growth factor production. Accordingly, all the points raised in the rejection are addressed by the amendments above in claim 7.

Applicants respectfully request withdrawal of the rejection.

Claims 4-9 have been rejected under the second paragraph of §112. This rejection is respectfully traversed.

As noted above, claims 4 and 5 are deleted by the amendments presented above, and claim 7 is amended, thus addressing the matters raised in the rejection concerning these claims.

Claim 6 is amended to define that "the amount of said active ingredient is above 10 μg/kg/day and less than 200 mg/kg/day." This amendment is supported by the description of the specification at page 31, lines 1-4.

In the amended claim 6, W_1, W_2 and W_3 are recited to be "a residue in which a SH group is removed from cysteine or a peptide containing cysteine." This amendment is supported by Examples which describe compounds wherein W_1, W_2 and W_3 are residues in which a SH group is removed from cysteine or glutathione (a peptide containing cysteine).

As helpfully pointed out by the examiner, claims 7 and 8 should have been dependent from claim 6 rather than claim 5, and they are amended above to correct the claim dependencies.

Applicants respectfully request withdrawal of the rejection based on the second paragraph of §112.

Claims 4 and 5 have been rejected on the basis of obviousness-type double patenting. These claims are deleted above, and therefore the rejection is no longer applicable upon entry of the present amendment. However, and for the record, applicant's deletion of these claims is not to be taken as any agreement or concession that the rejection is correct.

Claims 4-8 have been rejected as obvious under §103 from Koyama (previously cited and applied) in view of Hogde-Dufour et al (Hogde-Dufour). This rejection is respectfully traversed.

Applicants respectfully repeat by reference the remarks applied to Koyama in the preceding reply. Koyama teaches nothing about enhancement of growth factor production.

Hogde-Dufour has been cited for the proposition that it was known in the art that TNF inhibits the production of interleukin-12. According to the rejection, it would therefore have been obvious for the person of ordinary skill in the art, in view of Koyama and Hogde-Dufour, to administer the Koyama compounds of Formula II, taught by Koyama to inhibit TNF, for enhancing the production of interleukin-12.

Regardless of whether or not such would have been obvious to the person of ordinary skill in the art at the time the present invention was made, and applicants make no concession in this regard, the amendment submitted above with respect to claim 6 to delete the recitation "and/or interleukin-12 production" clearly obviates the rejection. The prior art does not teach those skilled in the art that the administration of compounds of Formula II would enhance growth factor

production, i.e. applicants' method would not have been obvious to the person of ordinary skill in the art from a consideration of Koyama in view of Hogde-Dufour.

Applicants respectfully request withdrawal of the rejections.

Applicants respectfully request favorable reconsideration, entry of the amendments presented above and formal allowance.

Respectfully submitted,

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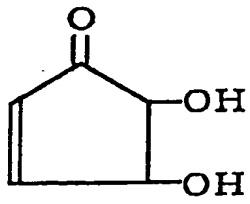
VERSION WITH MARKINGS TO SHOW CHANGES MADE

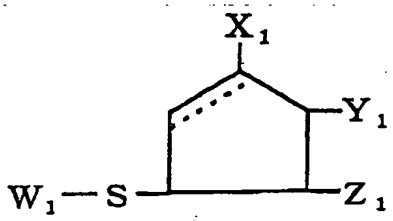
6. (Amended) A method for enhancing growth factor production ~~and/or interleukin-12 production~~, the method comprising administering a composition containing, as an active ingredient, a compound selected from the group consisting of 4,5-dihydroxy-2-cyclopenten-1-one of formula (I):



(I);

4-hydroxy-2-cyclopenten-1-one;

a compound of formula (II):

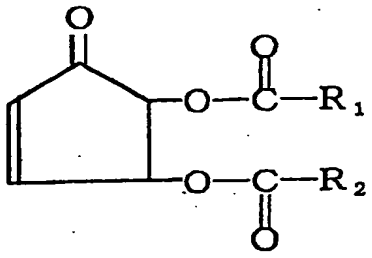


(II)

wherein a bond in the five-membered ring represented by a broken line means that the five-membered ring may be either a cyclopentene ring having a double bond or a saturated

cyclopentane ring; in the case of a cyclopentene ring, X_1 is OH, Y_1 is =O and Z_1 is H; on the other hand, in the case of a cyclopentane ring, X_1 is =O, Y_1 is OH and Z_1 is OH; W_1 is a residue in which a SH group is removed from ~~SH group-containing compound~~ cysteine or a peptide containing cysteine;

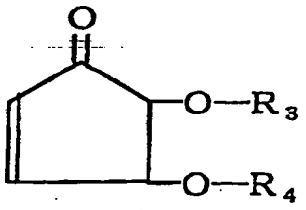
a compound of formula (III):



(III)

wherein R_1 and R_2 may be the same or different from each other, and are hydrogen, or an aliphatic, aromatic or aromatic aliphatic group;

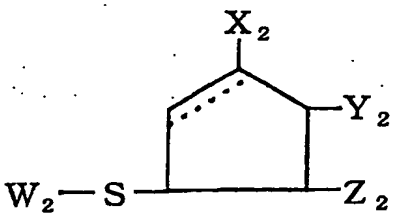
a compound of formula (IV):



(IV)

wherein R_3 and R_4 may be the same or different from each other, and are hydrogen, or an aliphatic, aromatic or aromatic aliphatic group, provided that R_3 and R_4 are not simultaneously H;

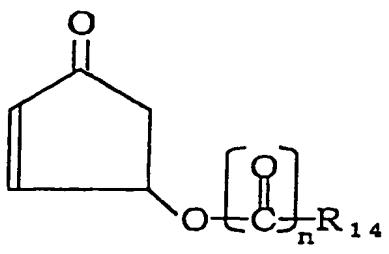
a compound of formula (V)



(V)

wherein a bond in the five-membered ring represented by a broken line means that the five-membered ring may be either a cyclopentene ring having a double bond or a saturated cyclopentane ring; in the case of a cyclopentene ring, X_2 is OR_5, Y_2 is =0 and Z_2 is H; on the other hand, in the case of a cyclopentane ring, X_2 is =0, Y_2 is OR_6 and Z_2 is OR_7; R_5 is R_8 or $-(CO)-R_9$; R_6 is H, R_{10} or $-(CO)-R_{11}$; and R_8 is H, R_{12} or $-(CO)-R_{13}$ (wherein R_8, R_9, R_{10}, R_{11}, R_{12} and R_{13} may be the same or different from each other, and are an aliphatic, aromatic or aromatic aliphatic group, and R_9, R_{11} and R_{13} may be H), provided that R_6 and R_7 are not simultaneously H; W_2 is a residue in which a SH group is removed from ~~a SH group-containing compound~~ cysteine or a peptide containing cysteine;

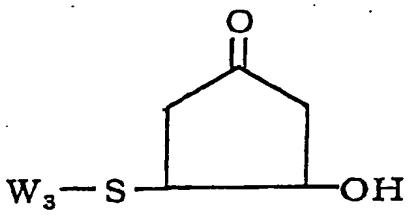
a compound of formula (VI):



(VI)

wherein R_{14} is an aliphatic, aromatic or aromatic aliphatic group, and n is 0 or 1, provided that if n is 0, R_{14} is not H;

a compound of formula (VII):



(VII)

wherein W_3 is a residue in which a SH group is removed from ~~a SH group-containing compound~~ cysteine or a peptide containing cysteine;

4-(9-adeninyl)-2-cyclopenten-1-one; and

4-(9-guaninyl)-2-cyclopenten-1-onex,

wherein the amount of said active ingredient is above 10 μg/kg/day and less than 200 mg/kg/day.

7. (Amended) The method according to claim ~~5~~ 6, which is used for treating or preventing ~~a disease that requires enhancement of growth factor production for its treatment or prevention and/or a disease that requires enhancement of interleukin-12 production for its treatment or prevention~~ hepatitis, severe hepatitis, cirrhosis, cholestasia in liver, chronic nephritis, pneumonia, wound, senile dementia, Alzheimer's disease, peripheral neuropathy, a cerebrovascular disease, brain tumor, apex of brain, a

degenerative disease associated with head injury, anesthetic intoxication, growth impairment, amyotrophic lateral sclerosis, osteoporosis, and renal insufficiency.

8. (Amended) The method according to claim ~~5~~ 6, wherein the composition is a food or a drink.